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## ORIGINAL COMMUNICATIONS.

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### REPORT ON ORTHOPEDIC SURGERY,

MADE AT THE ANNUAL MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY, CONVENED IN CHICAGO, MAY 3d, 1864.

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By DAVID PRINCE, M. D., Jacksonville, Ill.

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*(Concluded from last month.)*

Mons. Bouvier is quoted by Barwell as having divided in 1842, in a dog, the flexor carpi radialis, the flexor carpi ulnaris, the flexor digitorum sublimis, and the flexor digitorum profundus. In none of them did the subcutaneous wound unite so as to restore the use of the parts. In another experiment, the tendons did not unite at all; in another, the severed structures even massed together. Mons. Bouley met with the last result in an experiment upon a horse.

It is probable that in some of these cases of massing together there would be afterward an absorption of portions of organized exudations, which impede the movements of tendons, like that which occurs after a general union of tissues in the neighborhood of fractures, so that the result finally would not be quite as bad as might be inferred from these statements.

An objection strongly urged even to the division of the tendo Achilles is, that the "cicatrix contraction" which attends all solutions of continuity united by the interposition of extensive organized exudation, gradually diminishes the distance between the cut extremities of the divided tendon, so that they are finally brought nearly or quite together. This makes a bad compensation for the advantage gained at first, by the necessity of the wearing of apparatus to prevent the recurrence of the deformity, while this process of cicatrix contraction is going on. In the treatment without tenotomy, the muscle is from the first made to grow longer, by a change of its nutrition, induced by the force gradually and persistently applied, rendering the progress at first more slow, while in the treatment by tenotomy, this growing of the muscle to a greater length has afterward to be secured, when the cure fallaciously seems to have been completed, and perhaps after the case has passed from under the supervision of the surgeon.

The following is Barwell's language upon this subject: "The re-union of the tendo Achilles, after its division for Talipes equinus, is almost a certainty, but it (the division) permanently weakens the muscles, nor is such a procedure, as a rule, an efficient cure of the disease; partly because the gastrocnemius and soleus are not the principal muscles affected, and generally have very little to do with the mal-position, partly because contraction is sure to recur." (p. 120.)

Notwithstanding all this, however, there are occasional instances in which even Mr. Barwell, anti-tenotomist as he is, would divide the tendo Achilles.

"I do not mean to deny that, occasionally, when there is either great want of development or great degeneration, it may be necessary to divide the tendo Achilles, but it should always be avoided if possible, since it is merely a temporary expedient which always leaves behind it a certain deformity." (p. 127.)

In contrast with this again is the language of Bauer. (p. 24.) "As a general thing you have only to deal with the contracted

muscles, and *division* is the sovereign remedy. But if the case has existed from infancy the bones have in form accommodated themselves to their abnormal position, the tibio tarsal articulation is crippled; then the prognosis is rendered doubtful, and the case may be irremediable."

"It is a common observation of orthopedic surgeons that the relief of contracted muscles by tenotomy reacts most favorably for the nutrition of the affected extremity, and nutritive supply promotes, self-evidently, its growth and development. Passive motion co-operates in the same direction."

A question of interest here arises as to what part the division of the tendo Achilles takes in the restoration of the muscular function.

If the congestion of the muscle, occasioned by the increased supply of blood to the tendon beyond for the repair of its wound, favors a better nutrition and consequent restoration of nervous power, it might be supposed that a seton or an issue applied nearer to the muscle to be affected, from the proximity of inflammation, would do better by exciting more action in the muscles.

It is more probable that the movements of flexion and extension, which attend the treatment following the division of the tendons, and subsequent to the re-union of the divided tendons, gradually induces a lengthening of the muscular fibrils, and this lengthening is a necessary condition to their shortening under the irritation of electricity or any other irritant. This opposing force should be either elastic or alternating, in order to obtain the most stimulating effect upon the muscles in process of restoration; permitting frequent exercise of contraction, with yielding force so graduated as to restore the length of the muscle upon the decline or cessation of their contraction.

The alternating movements of the tendons of the still paralyzed antagonist muscles, first pushing and then pulling these tendons, and, in a minor degree, pushing and pulling the muscles themselves, invites a flow of blood to the muscular sub-

stance, favoring its continued healthy nutrition, and the earliest possible revival of nervous power, when the paralyzing cause residing in the brain, in the spinal cord, or in the course of the nerves, whether from organic lesion or sympathetic action, is removed.

If the cause of the paralysis is such a destruction of nervous substance as to result in complete and permanent paralysis, the alternating movements of the muscles will at least tend to preserve their volume, by keeping up their nutrition, by making it mechanically possible for the blood to circulate through all their capillaries; motion being as essential to the freest circulation through the muscles as through the lungs.

The general health then has the benefit of a well-distributed circulation, in addition to the local advantages of attention to this indication.

This plan of yielding force, called by Dr. Henry G. Davis "elastic extension," is very properly denominated by him, the "American plan," and to him is due the merit of having been the first to employ it systematically, and with a full appreciation of its value, acting in a manner similar to that of muscles, alternating in the extent of their movements with the alternations of the degrees of resistance to be overcome.

Apparently from ignorance of American Medical literature Barwell claims this plan as his own. This is one of the instances in which several claimants for originality may be equally honest and original, the merit, however, consisting in the application of some other invention which makes a revolution of the given art, not only easy but unavoidable.

In this case the invention at the bottom is the manufacture of elastic rubber, placing in every one's hands a most facile means of meeting an indication which the older surgeons saw but had no ready means of accomplishing. (See Trans. Am. Med. Assoc., 1863.)

In cases affording obstinate resistance to reduction by extension, the progress can be greatly facilitated by the occasional application of force, while the patient is insensible from the influence of ether.

The same condition is artificially produced which occurs in a subluxation or sprain. The most tense ligamentous fibres are torn, without a complete rupture. The investments of the muscular fibres in the shortened muscle are either slightly torn interstitially, or put upon extreme tension. All this is followed by increased vascularity, which is favorable to change of tissue, in obedience to the tension afterward applied to it for the purpose of elongation.

This has been a common practice among American Surgeons for many years, though Barwell, strangely enough, claims it as his peculiar invention. He says, with much apparent satisfaction, (p. 116,) "This is also a procedure of *my own* adaptation to these diseases, and is one from which very great advantage may be drawn." He very properly goes on to say, "I would limit its employment to severe cases, and would caution surgeons against the use of violence; since, when once the muscular power is annihilated by the anæsthetic, very little force is required to place the foot in a normal position."

#### ELECTRICITY.

Electricity has been employed to remove the condition of the muscles upon which the deformity has been supposed to depend.

This subject can not better be illustrated than by quoting from representative writers, who take opposite positions.

Bauer already so often quoted, more for the recent date of his publication than for its scientific value, says, "The most efficacious remedy in behalf of innervation is electricity. It should be used with assiduity every day and for months in continuation. It will stimulate the existing mobility and prevent structural decay. \* \* Electricity is the substitute for volition and the best local gymnastic agent. Next are friction with alcoholic liquids; with phosphorated oil, (phosphorus, 3 grs., dissolved in an ounce of warm almond oil,) with the flesh brush, with or without cold irrigation."

We are left to infer that he would apply the electric current to the contracted muscles with the intention of relieving the

spasm upon which the contraction is supposed to depend. This question of spasm has been already sufficiently discussed and it may be proper to add that, as a curative agent, the galvanic current should not be applied to the muscles whose tendons it has been found necessary to divide, but to the elongated muscles whose partial or total paralysis has permitted the shortening of their antagonist muscles.

It is obvious that when, by unresisted tonic contraction, the muscular fibres and their fasciæ have shortened to their utmost, neither electricity nor the prick of a pin can make them shorten any more. A galvanic current can make no impression which is known by movements, because this agent and other irritants only produce contractions. If, however, the muscular fibrils and their investments are first made to grow longer by frequently repeated pulls upon them, or by constant force varying in intensity, thus restoring the muscle to a greater or less extent, to the possibility of performing its natural function, that of producing *motion*, instead of the one to which it had degenerated, that of holding parts in *position*, i. e., the function of ligaments, then, after so much progress has been made towards the cure, it might be expected that electricity would index it by the contractions which would result from its application.

It is difficult to see, however, on what rational principle, electricity should be applied to the shortened muscles with any other intention than to determine whether they could shorten any more, or to ascertain in the progress of treatment in a case in which a muscle had been shortened and degenerated beyond the possibility of exciting contractions by the electric current, whether any progress had been made, or perhaps to throw light upon the probable replacement of the muscular substance by fatty degeneration. In the latter case electricity could not produce movement.

The notion of Baner that we have only to deal with the "contracted muscles," is certainly in forgetfulness of all correct pathology. He details in his book, cases of paralysis of

the inferior extremity, followed by permanent extension of the foot, beginning with painless contraction of the extensor muscles. Now what would electricity do with these muscles? It might make them contract more disproportionately, or if in too strong currents it might exhaust their excitability. What would tenotomy do to them? It would permit a greater degree of shortening of the muscle affected than could otherwise take place. We have something else to deal with than the contracted muscles.

In these cases of paralysis of all the muscles of the leg, there was an attempt at restoration of muscular power, commencing in the triceps extensor pedis. The restored contraction of these muscles having no resistance to oppose followed the usual law of shortening and of acquiring a more limited space of contraction; or from utter want of pull upon them, a fixedness in the shortest space, to be followed by fatty degeneration, or by absorption of the proper substance of the muscles, and a condition of inelasticity in the muscular investments. In all such cases the early use of power to counteract the muscular contraction is an imperative indication; partly to obviate the permanent contraction of the muscles, which are in the process of restoration of their proper function, and partly to give time for restoration of contractility in the paralyzed antagonising muscles, which are slower in the process of restoration. If in the restoration of muscular contraction referred to in these cases of paraplegia, both sets of muscles had been supplied alike by nervous power, no deformity would have resulted. There remained a relative paralysis of the flexors of the foot, the tibialis anticus, peroneus tertius, and long extensors of the toes. If this is so, the electric current should be applied to the latter muscles, rather than to the calf of the legs.

The following quotation from R. B. Todd's "Clinical Lectures on Paralysis and Diseases of the Nervous System," Lindsay & Blakiston's Edit., p. 152, will here be in point:

"You will often be consulted as to some expedient for pro-

moting the restoration of paralyzed limbs to their normal condition. To this question, after having given a fair trial to the various means which have been proposed for this purpose, I must reply that I know of nothing which more decidedly benefits paralyzed limbs than a regular system of exercise; active when the patient is capable of it, passive if otherwise.

"As to the use of electricity, which is now much in vogue, or strychnia, which has been recommended, I feel satisfied, as the result of a large experience, that the former requires to be used with much caution, and that the latter is apt to do mischief and never does good. I have seen cases in which, after the employment of electricity for some time, that agent has apparently brought on pain in the head, and has excited something like an inflammatory process in the brain. And so strychnia will also induce an analogous condition of the brain, and will increase the rigidity of the paralyzed muscles. Some good may occasionally be effected by the use of friction or cold water, or sham-ooing, all of which tend to improve the general nutrition of the nerves and muscles."

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#### COMMUNICATED.

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MESSRS. EDITORS:

The task of the medical reformer is always, like that of Sisyphus of old, an endless one. Hardly has he elaborated his idea, and brought it into public notice, when ignorance and prejudice combine to roll it back upon him. Even when the summit of success is reached in the general recognition of its usefulness, his strife is not to end amid the rivalry of conflicting and opposing views of individuals.

Not to affect the *role* of the professional philanthropist, may I offer to your readers some objections to the continued proclamation of the virtues of this or that method in the treatment of *prolapsus uteri*, whose success, if it be attained, is unnatural and abhorrent to our inmost instincts, not to say



enlightened reason; concluding with some brief statements which may incline an inquiring mind to a more careful examination of other means applicable to the vast majority of cases, and interfering in no way with the functional or organic perfectness of the patient.

To the American mind the idea of curing prolapse of the uterus by inducing the cohesion of vaginal walls is singularly repugnant. One readily conceives of the possibility of closing the vaginal outlet, thus to prevent the actual exit of a *procidens* womb, but in practice the most distressing cases are those in which but slight prolapse is present; where, if it be true as our veterans in obstetric science assert, that the vaginal walls by themselves considered are in no wise the uterine support, this severe and unnatural operation would be superfluous. Indeed, since vaginal contractions are the most dreaded obstacles to the reposition and maintenance of a displaced organ, *artificially* induced by the actual cautery, they must not only fail in purpose, but absolutely preclude all further effort to relieve the injured and suffering patient. The attempt to excise a portion of the relaxed duplicatures of peritonæum, which constitute the true uterine and vaginal ligaments, thus to shorten them and support the womb, would seem more philosophical and scarcely more barbarous.

The vagina is more properly to be esteemed an antagonizing force to the uterine ligaments, if the term force may be applied to so passive an organ. Its relaxation therefore can not, alone, predispose to uterine prolapse, though its contraction would most assuredly do so, and I apprehend that proper investigation would assign a very prominent place to this cause in displacements occurring after severe and tedious labors. I repeat, therefore, my conviction that Dr. Bird's operation, acting upon parts not concerned in the support of the uterus, and even tending to increase the obstacles in the way of its reposition, is not based upon physiological grounds, and must prove valueless, unless perhaps in certain cases of *procidens*, where the mere retention of the organ within the pelvic cavity may be the prime object in view.

Permit me to advert to other methods, not new indeed as a class, but open to as serious objection as that above alluded to. The uterine neck, when in its normal condition, is not endowed with great sensitiveness, nor are the parts contiguous thus sensitive. But from whatever cause, let congestion and inflammation arise, or let nervous irritations occur, upon the contact of parts not designed to exist, and speedily another condition is present—one of hyperæsthesia—which is to be regarded most religiously in the treatment proposed or undertaken. Imagine, then, a uterus prolapsed for months, perhaps for years, congested or inflamed, every motion of the body carrying with it a local ache or a twinge in parts remote by reason of the extreme sympathies awakened with the diseased and distressed organ, and conceive again of enclosing such a cervix in an unyielding socket of wood or rubber or other possible material, or, indeed, of allowing it to rest in any way upon such an instrument, supported from without, for the implied and expressed purpose of maintaining the uterus in an elevated position, thus to secure *relief from suffering!* It need hardly be written, that such a support will, in the vast majority of cases, fail signally in accomplishing its object, where it does not indeed aggravate the symptoms, because of its unfortunate substitution of a still more unyielding and more irritating resting place for that to which the displaced organ has been already reduced. No wonder is it that the pessaries of years ago were confessedly pitiable failures, or that the profession are loth to acknowledge that any good can come of an instrument bearing the name. Beside the demerit suggested, great objection applies to a method which needs for its fulfillment external appliances which, in the constant motion of the wearer, must always remind her of her ailment, inducing by their sensible presence a condition of mind and body neither comfortable nor healthful. One at all conversant with the delicate sensitiveness of the female mind will look far and wide for means which will meet as well the mental as the physical acquirements of her case.

The same objection applies to all "abdominal pads" and "supporters," which are moreover entirely unphilosophical, tending, I believe, *always* to aggravate the cause of suffering, under the dangerous guise of temporary relief. Dr. Meigs is undoubtedly right in considering the "abdominal cavity" a *plenum*, making it subservient to the laws of hydrostatics, in that pressure externally applied is communicated in exact ratio to its walls inferiorly, superiorly and laterally. It matters not if that pressure be "directed upward" to relieve the womb of the weight of the bowels, it only tends to force the abdominal contents into the pelvic cavity, depressing rather than conducing to the elevation of the uterus.

Enough has been said to afford the premises for a brief exposition of a plan of treatment for this affection, differing in theory and practice from those advanced by your contributors, and advocated by men whose obstetric writings have deservedly secured for them a world-wide reputation.

I have endeavored, indirectly, to suggest the advantages to be sought for, as well as the disadvantages to be avoided, in the selection of an uterine support. First, it must be contrived in accordance with a just appreciation of the relationship of the parts concerned. It must be *philosophical*. Second, it must not involve such an unnatural interference with those relations, as, if unsuccessful, to prevent other means being used, having the same object in view. Third, it must elevate without pressing upon irritated or inflamed parts. It should be painless. Fourth, it must enhance the mental comfort and well-being of the patient, by being an ever present assistant, without being a constant reminder, and require the least possible interference from physician or patient. Fifth, it should not interfere with the integrity and complete performance of every function, marital or otherwise. Lastly, it should aim at completeness and permanency of cure in the least possible time.

I know of no uterine support which so fully meets these

indications as the pessary of Dr. Hodge, of Philadelphia. It is eminently philosophical, addressing itself entirely to the relief of the parts, whose office it is to afford a perfect and elastic support to the uterus, and finishing its work when, by long rest and judicious general treatment, they have been enabled to regain a natural tension and capacity. It involves no change in the vaginal tissues, or such topical derangements of parts as would prevent its own disuse, and the subsequent trial of other means. I speak with the confidence of experience, in claiming for it also the power of elevating and suspending the displaced organ in such a manner as that its cervix, never intended to be its support, and diseased because it has been abused in that capacity, is freed from contact with unyielding tissues, and from the weight of superincumbent organs. And this it does, when properly applied, with the alone temporary inconvenience of introduction. It requires no assistance from without, by straps or abdominal pads, and is worn *unconsciously* by the patient for weeks and months, with only care enough on her part to secure cleanliness of person. It interferes in no wise with the use of the syringe, the freedom of exit of menstrual fluids, or with the exercise of marital rights. It aims at, and secures in the majority of instances, a condition of mind and body freed from deleterious influences, and now able react most healthfully in all its parts, particularly in those whose duty it is to support the uterus, so that, at a variable period, the patient may be encouraged to hope for a more natural and complete freedom of power and function.

It has obviously been my purpose in this communication to avoid any incursion upon the wide field of controversy which separates the disciples of Dr. Bennett and Dr. Hodge, as the representative men of our day, so far as concerns uterine affections. I have simply presumed that there were some, who, searching after truth and effective means, had failed either to meet with Dr. Hodge's instrument, or to give it the thorough and tentative examination which secures a full appreciation of

its merit. Its claims are so fully and ably set forth in the inventor's work on the Diseases of Women, that I shall have amply repaid myself if I induce any physician to study, still more, to test in practice, its admirable precepts.

As an apology, I may add, that in no other department of practice have I found nearly so favorable results, in so large a proportion of cases, to attend the use of any single *curative* means, and I hope, at some future time, to give the profession, at length, the details of cases which have furnished my own mind with the most positive and conclusive proofs of the truthfulness of the statements made at present.

H. WEBSTER JONES, M. D.

*Note.*—Since the above was written I have learned that several applications have been recently made, to an eminent medical man of this city, for *cauterizing* irons, with which to “cure (!) prolapsus uteri.” *Verb. sup. sat.*

## THE DUTIES AND RESPONSIBILITIES OF THE PHYSICIAN.

AN ESSAY READ BEFORE THE STARK CO. MED. SOC., OCT. 1, 1864.

By J. B. HOAG, M. D.

*Mr. President and Gentlemen:—*

The task which has been assigned me is one that well might employ an abler pen, and which one, far more competent, might well enter upon with hesitancy and reluctance. The first item which I shall notice in connection with the first department of my subject is, *The duty of being amply qualified for the vocation of his choice.*

Before entering fully upon the discussion of the thought under consideration, I will premise that the young man who contemplates becoming a disciple of Esculapins, contemplates

assuming a position, at once honorable, which has claimed for its votaries the noblest intellects, the most gigantic minds, of which the world can boast; but while this is true, it is a vocation fraught with grave responsibilities, not unfrequently vexatious perplexities, and onerous and fatiguing duties. Those who imagine it to secure a life of ease or indolence, will ascertain upon experiment, that they have counted without their host. There is, to me, something grand and sublime in being instrumental in mitigating the sufferings of those who are enduring the tortures of disease; in restoring to the society of those who are dear to them, by the ties of consanguinity or affection, those whom, to all human appearance, death has claimed as his victims; in restoring the roseate hue of health to the wan and cadaverous cheek of the invalid.

Having, after due consideration, and a full appreciation of the dignity and responsibility of the calling, as well as difficulties incident to it, decided upon making it a profession, the next idea is, the qualifications necessary to enable one to discharge the duties that will necessarily devolve upon him.

Life and health are the most desirable of earthly blessings, and when disease deprives us of the one, and threatens to wrest from us the other, we have the greatest interest possible at stake to induce us to seek aid from those who are justly competent to afford relief and guarantee to us those estimable boons, and the man, young or old, who presents himself before the public as one who is capable of administering to the necessities of the sick, without a consciousness of a competent qualification, is assuming a fearful responsibility.

The question, how can the requisite qualifications be obtained? is one that properly presents itself for consideration. We answer, by perusing the works of those who have preceded us, and who have left their experience upon record, for the benefit of their successors. The student of medicine should be diligent in seeking to acquire knowledge of this kind. He who purposes to assume the responsible position of administering to the diseased, and warding off, for the time being,

the shafts of death from its intended victim, has no time for idleness but he should avail himself of every opportunity to acquire information, which is calculated to enable him to be of benefit to those to whom he may, in the future, be called upon to administer. Here it would be proper to remark, that there is a great difference between reading and studying. The text-books which it is necessary for the student of medicine to peruse, can not, with benefit, be read in a careless manner, as might be done with a novel or history, with the thoughts wandering to other subjects, but it must be *carefully, diligently studied*, and the ideas therein contained *permanently* stored in the mind and frequently made the subject of thought and reflection, in order that he may be able to reduce them to purposes of practical utility, whenever circumstances render it requisite for him so to do.

If there is, in times of peace, one curse that civilized society suffers more from than any other, it is quackery—empiricism. The vast number of valuable lives that have been sacrificed at the shrine of ignorant presumption, the number that have been materially injured for life, by ignorant pretenders to the art of medicine, can never be correctly estimated while time rolls its onward course to the vast ocean of eternity. The moral turpitude that is attached to this reprehensible course, is extreme. Compared with the empiric, the swindler, nay, highway robber, who takes but pelf, without injury to life or health, are harmless. These considerations ought to stimulate the student to every possible exertion to become, as far as possible, competent for his vocation. But he cannot learn all that is necessary to be known from books alone. He should have recourse to the lecture room, where, under the instruction of those who have previously climbed the weary steps of scientific knowledge, he may gain information, by ocular demonstration, that he can obtain from no other source. There are advantages to be derived from this method of instruction, which no other advantages possess. Ordinarily, deeper and more lasting impressions are received from oral

instruction than is the case by perusing that which is written; and the lecture room affords opportunities for ocular demonstration in chemical experiments, natural and pathological anatomy, and clinical medicine which cannot be obtained from books alone. It is conceded by all that knowledge conveyed to the mind through the medium of the senses is from the nature of the mind more permanent than that obtained through any other medium.

The time has been when legislative enactments threw the shield of their protection round the public, and made it obligatory upon all would sustain the relation of physician to the public to emanate from colleges founded for their benefit, with vouchers of their ability; but this barrier against imposition has been broken down to too great an extent for the public good, but yet the moral obligations to be competently qualified, as well as the rights of our patrons, remains the same.

But the study and the lecture room do not afford all the facilities for obtaining information of value to the medical student. It has been well said, by an eminent medical writer, that "the theory of medicine can be learned from books and in the lecture room, but the practical knowledge necessary for success must be obtained by the bed-side of the sick, in the chamber of the invalid." It behooves the student, then, to avail himself of every opportunity that is offered to visit the sick, observe the symptoms of disease, and the action of remedies used.

After having become qualified to stand the scrutiny of a thorough examination, and by application over the "midnight oil," and years of studious application to medical books and all other available means calculated to afford the requisite information, to enter upon his vocation, the physician presents himself before the public as a candidate for public patronage, he ought not to regard himself as having arrived at the finality of his attainments, but rather as having merely laid the foundation on which it is his business for a life time to build. All through the course of his life he should be a student—a



hard, devoted student—determined to dig deep into the hidden mysteries of the healing art, and avail himself of all the new discoveries which mark, with rapid strides, the progressive character of the age in which we live; that he may use them for the benefit of those to whose necessities he is called to administer.

But other duties devolve upon him. While it is his imperative duty to guard against needless exposure, which is calculated to jeopardize his health, no considerations of selfish indolence should ever prompt him to refuse to brave storms or tempests, or to endure fatigue, in the performance of professional duties. The physician ought ever to be willing to sacrifice his ease and comfort, if the necessities of the sick and suffering require him to do so. While we frankly admit it to be the duty of the physician to attend, when his services are required, upon the indigent and those who are proper objects of charity, irrespective of the certainty of an adequate compensation, we claim that he is not, in duty, bound to dispense his favors to those who *might*, but *will not*, make an effort in that direction.

The physician should regard himself as the guardian of the public health. It is his duty under all circumstances, and especially during the prevalence of epidemics, to give to his patrons such information as may serve for prophylactic purposes in the avoidance of disease.

The items which we have enumerated have reference particularly to the duties which the physician owes to his patrons, but there are others which refer particularly to the profession. In regard to these it may truthfully be said, that the golden rule which the Saviour enunciated for the guidance of His followers, is sufficient for a guide if strictly adhered to, in the conduct of one physician towards another. Courtesy, affability, a recognition of the rights of our professional brethren, should under all circumstances mark the course of every physician.

Much more might be said relative to the duties which de-

volve upon the physician, but suffice it to say, in conclusion, on this part of our subject, that they are varied and controlled to a great degree by circumstances, which require the exercise of a sound, deliberate judgment.

We now proceed to remark briefly in reference to the responsibilities which he incurs, and which are the legitimate results of his vocation.

A fearful responsibility rests upon the physician if bad results follow the treatment which the sick receives at his hands, provided, in consequence of ignorance or indolence, that treatment was not adapted to the case. I frankly confess that I can not imagine how those who profess to be skilled in the healing art, but know full well that they do not possess the requisite knowledge, can rest easy under the load their consciences must bear, with the consciousness of the amount of responsibility they are assuming. Quackery has doubtless been instrumental, to a great extent, in peopling the regions of perdition with many who, had not their lives been cut short by a false pretender, might have complied with the requisitions of the Gospel and have become heirs of salvation.

The physician assumes grave responsibilities in all the duties of his calling, but the extent of it is determined, in a great measure, by circumstances. He ought always to reel that while he maintains that relation to the public, a great amount of responsibility rests upon him, of which he can not divest himself. To him the anxious mother, the solicitous wife, the grieved father, the afflicted husband, and the weeping child, look with anxious solicitude, when their loved ones are prostrated with disease, and the grim monster threatens to snatch them from their loved embrace.

Other ideas might properly be noticed but our article has reached a greater length than we at first anticipated, and we will leave the subject for a future time, or more able hands.

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## CLINICAL LECTURES ON DISEASES OF THE EYE.

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By E. L. HOLMES, M. D., of Chicago,

*Lecturer on Diseases of the Eye and Ear in Rush Medical College, and Surgeon of the Chicago Charitable Eye and Ear Infirmary.*

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### ARTIFICIAL PUPIL.

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*Gentlemen:*—Whenever, under certain circumstances, the natural opening in the iris becomes obstructed, thereby shutting the rays of light from the retina, a new or artificial pupil may be made in the iris and the usefulness of the eye restored.

The operation by which this is usually done is termed Iridectomy, and is often followed by the most satisfactory results. This subject opens a long chapter in Ophthalmic surgery, of which I can only give you the leading principles. The operation is especially applicable to three classes of cases. 1st. Those in which light is prevented from entering the eye, by opacities of the cornea, central opacities of the lens, and closure of the pupil by organized lymph. 2d. Those in which experience has shown, without, however, giving perfectly satisfactory reasons, that this operation arrests the progress of a destructive inflammation of the iris, choroid, and ciliary processes, relieving pain and, in some instances, restoring sight. 3d. Certain cases of cataract in which, in the operation by extraction, the passage of the lens through the iris (pupil) may be facilitated by enlarging the natural pupil, thereby reducing the danger of injury to the iris.

The operation is performed in certain other conditions of the eye; but a careful study of the three classes just mentioned will enable you to appreciate the indications for the operation in other cases.

Before performing the operation for artificial pupil in the

first and third classes of cases, it is a matter of importance to examine the condition of the retina. You can readily understand, that, whenever in these cases, the retina or optic nerve is amaurotic, there would probably be little advantage derived from the operation.

Whenever there is an opacity of the cornea front of the pupil, and the patient can distinguish objects held in the plain of the iris, there is almost a certainty that the retina is intact. If there are adhesions between the iris and cornea or lens, with opacities of either of these organs, there is reason to believe the retina is healthy, if the iris retains its normal color, if the patient can distinguish the light of a candle in the dark, at the distance of thirty feet, or if he can perceive the shadow of the hand passed to and fro before the eye.

In cases of extensive adhesions between the iris and lens, especially where the iris is discolored, or the eye atrophied, there is reason to fear that both the choroid and retina are impaired. Still even in very unpromising cases of this kind, the removal of a piece of the iris has sometimes restored quite good vision to the eye.

As I have already informed you, chronic iritis, with adhesions to the lens, is very liable to suffer relapses, terminating finally in choroiditis. The removal of a part of the iris often arrests this tendency.

In Glaucoma, and certain forms of choroiditis, Iridectomy is one of two operations, which are most certain of affording relief. For explanations of the curative effects of this operation in chronic iritis and glaucoma, I would refer you to several articles by Graefe, a translation of which may be found in the publications of the Sydenham Society. In the last few numbers of Braithwaite's Retrospect is quite a full discussion of the subject.

It is sometimes a question of considerable importance to decide whether an operation on one eye will prove advantageous when the other is perfect. This question, however, can scarcely arise when it is the object of the operation to arrest inflammation.

In other cases as, for instance, in opacities of the cornea, good authorities differ in opinion as to the advantage to be derived from an operation on one eye, the other being sound. Inasmuch as the new pupil is not situated in the natural axis of vision, there is sometimes difficulty on the part of patients in directing the eyes upon an object without double vision, when one eye is sound and the other has an artificial pupil. Although patients after a time learn to overcome this disadvantage, I prefer not to operate where one eye is normal, unless the new pupil can be placed quite near the centre of the iris, and a large part of the cornea is perfectly transparent. Where both eyes are quite diseased but more or less suitable for the operation, I believe it is usually preferable to operate upon the better one alone.

A question sometimes arises in reference to the most suitable position for the new pupil. In many cases of opacity of the cornea there is but one choice, since but one portion of the cornea, and that often a minute portion, may be left transparent. Of course the section of the iris behind this transparent portion of the cornea can alone be removed with advantage. Whenever, as in central opacities of the cornea or lens, an artificial pupil can be formed in any section of the iris, there are reasons why the opening should be made in its inner, or inner and lower quarter. Some prefer to excise the upper, and others the lower part of the iris. Except when absolutely necessary, the new pupil should not be placed towards the external angle of the eye. In all cases it should be placed as near the centre of the cornea (iris) as possible.

Reference to the three cases of artificial pupil which I have been able to bring before you during the winter, will serve to impress upon your memory some of the foregoing principles. In the case of the young man, who lost his sight by the premature discharge of a blast, so much of the cornea was cicatrized that the artificial pupil could only be made in the upper and inner sixth of the right iris.

The German, who lost the use of his eyes from muco-puru-

ulest conjunctivitis, is able to see quite well through a pupil in the upper part of the iris, made behind a very narrow rim of transparent cornea.

The Irishman, with the very dense albugo, covering more than three-fourths of the right cornea, has obtained good vision by means of a pupil in the outer quarter of the iris. I believe you will seldom find a patient with an artificial pupil, *in the outer quarter of the iris*, who sees better than the one last mentioned.

It is well to remember that, where a small transparent portion of the cornea is surrounded by a translucent rim, vision is liable to be quite indistinct, after an operation for artificial pupil, on account of the diffraction of light. In these cases a minute aperture in a thin plate of dark metal, held close before the cornea, will generally improve vision by preventing diffusion of light.

The operation itself is usually simple, and attended with very little difficulty. With the use of chloroform and the ordinary instruments to keep the lids open, the eye can be fixed in any desired position, with a pair of forceps holding a small fold of conjunctiva. By means of a lance-shaped knife an incision, one to two lines long, is made into the anterior chamber, by passing the point of the knife, held with its flat surface parallel with the plane of the iris, through the sclerotic, a little less than a line behind its union with the cornea. After withdrawing the knife *slowly* to prevent a rapid discharge of the aqueous humor, and consequent sudden reduction of the intraocular pressure upon the delicate vessels of the retina, and to avoid sudden movement of the lens and iris forward, the fine iris forceps is introduced into the anterior chamber, without pressure upon the iris and lens; the forceps should be opened so as to allow a fold of the iris, near its papillary edge, to enter between the blades; they should then be closed and withdrawn with a piece of the iris, without tearing it from its ciliary attachments; this piece should be clipped off with a pair of scissors close to the cornea.

The anterior chamber is often filled with blood after this operation, but it is usually all absorbed in less than forty-eight hours. The only dressing necessary is a bandage with compresses to keep up gentle pressure upon the eye for a day or two. Iridectomy is rarely followed by inflammation either of the iris or other tissues.

It is an important fact for you to bear in mind that tearing or cutting out a piece of iris is scarcely ever followed by inflammation, but punctures and bruises of the iris, and contact of pieces of cataract and foreign substances with the iris, are almost sure to lead to serious inflammation.

In cases of central opacities of the cornea and lens, the operation of Iridodesis has been recommended in place of Iridectomy. This operation consists in seizing a small fold of the iris and drawing it through the wound in the cornea without tearing the fibres of the iris. Instead of snipping off the piece of iris, a fine thread is tied around it and left to slough off, when the iris becomes fixed in the cicatrix. In this way the normal pupil is preserved, but drawn from the opacity of the iris or lens and left where the cornea or lens is transparent. It is stated on good authority that while this operation is more difficult, it is also much more liable to cause inflammation than Iridectomy.

A few important points regarding Iridectomy in Glaucoma will be mentioned at another time.

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### SELECTED.

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### CONSTITUTIONAL SYPHILIS.

A Clinical Lecture, by JONATHAN HUTCHINSON,  
*F. R. C. S., Surgeon to the London Hospital.*

"I sometimes feel almost annoyed at being compelled so very frequently to prescribe iodide of potassium. We go from bed to bed, and to cases apparently of the most different kind,



and for almost one in every three I am obliged to dictate the same prescription.\* Iodide of potassium in large doses, generally in combination with ammonia, and sometimes with the bichloride of mercury, seems to be the panacea for almost a majority of our cases of chronic disease. Here is a man with convergent squint and double vision; he has come up from Cornwall to be treated, and he looks perfectly healthy. We investigate his case, and pronounce the diagnosis of syphilitic paralysis of his right sixth nerve. A man, a few beds lower down, came in on account of a pain in his heel, which had resisted all treatment for months, and prevented him from either working in the day or sleeping at night. He, too, looked quite healthy; but, on probing his symptoms and history, I gave a syphilitic diagnosis, and, what is more, confirmed it by quickly curing him. A woman was admitted six weeks ago with numerous large ulcers on the legs, and some also on her arms. She had scars of former ulcers about her knees; and the multiplicity of the sores and the worm-eaten character of the edges confirmed the suspicion formed at first glance. She, like the former patient, had had much previous treatment without result, and got well most rapidly under our favorite prescription. There is a boy in Talbot Ward with ascites, and with a liver which reaches below his navel, and with hard periosteal nodes on almost every long bone in his body. His sister was also here not long ago, suffering from nodes; and his mother I have repeatedly had under care during the last fifteen years for various forms of constitutional syphilis. We have also in the same ward two men suffering from chronic enlargement of the testis, which we attribute to the same almost ubiquitous taint. One of them is already nearly well; and the other, I have no doubt, will soon be so.

"If we go down stairs to the woman's ward, we shall find some most interesting cases. There is Mrs. G., the unfortunate wife of a very dissolute sea-captain. She came into the hospital in order to have her sight improved by an artificial pupil, in consequence of adhesions, etc. One of her eyes is shrunk, soft and collapsed; and she has, or rather had, the pupil of the other eye almost wholly closed by lymph. I have made her an artificial pupil, and she sees as much better as we could expect. You will notice that she speaks thickly, uses her limbs awkwardly, and, although not yet middle-aged,

\* In mentioning this proportion, I of course allude only to our wards for chronic disease, and do not include those for accidents.



looks as if she were entering on second childhood. Her history is that of a case of subacute syphilitic inflammation of the pia mater. She first came under my observation more than a year ago, at the Moorfields Hospital, for most acute double iritis, and covered with syphilitic rash. The pupils were already covered with lymph, and she was already salivated. We adopted the treatment which seemed best; but, as you see, only with very partial results as regards her eyesight. In her right eye, choroiditis and inflammation of the vitreous body afterward set in; and the eye ultimately became soft, and then shrunken, as it now is. After this, she became exceedingly nervous, could not sleep at nights, and was at length laid up at home with delirium. She was now for some weeks under private care with a form of mania; all her limbs became weak and tremulous; and, when she recovered, those of her left side were weaker than the others. As syphilitic inflammation often attacks the choroid coat of the eye, there is no reason why it should not affect the vascular membrane of the brain; and to suppose that it did so in this instance would well account for all her symptoms.

"In the same ward is a girl aged fifteen, whom we admitted a week ago with large, ragged-edged, very deep ulcers on the back of one leg. They are ulcers of a character which, if seen in an adult, you would at once pronounce to be those of tertiary syphilis. And, in confirmation of that view, she has an induration in front of one tibia. The girl is, however, only fifteen; and she has had these ulcers for several years. The disease in her is congenital; and she shows, in order to help us to this opinion, one of the most typical sets of teeth that I have ever seen. You will note that her physiognomy would not have led us to suspect her, for there is nothing very peculiar in it. The bridge of her nose is not flattened; her forehead is not protuberant; nor are there any scars of fissures about her mouth. Her teeth, however, tell the tale, and are so characteristically malformed, that I should venture a positive opinion without other evidence. You will watch the effect of specific treatment upon her ulcers. I will ask you to observe that the ulcers are clearly not due to mere ordinary cachexia, for the girl looks healthy; and should they be well under iodide of potassium in a few weeks, I shall then ask you to remember that they had existed for several years before she came here.

"I have only mentioned about a third of the curious forms of constitutional syphilis at present under our care. You will

observe that I omit all primary and secondary forms of disease. Those which we shall at present consider are such only as occur at long periods after the original disease, and come into the category of late tertiary affections. Our knowledge of this latter class has of late years very much improved, and we are now able to recognize many as such which formerly we did not know; and, I am glad to add, we are able to exclude some from suspicion which were formerly much suspected.

"The feeling of annoyance to which I adverted, as sometimes arising when one is obliged over and over again to prescribe the same specific, has its origin in a doubt and a fear—a doubt of one's own accuracy of judgment; and, secondly, a fear of the criticisms of others. A sort of fear arises as to whether, after all, the suggestions now and then made, 'Oh, he is riding his hobby—he sees syphilis in everything,' may not have some foundation in truth. Now, this self-mistrust is very natural and very useful in its proper place, but let me warn you not to let it go too far; and, as regards the criticism of others, let me beg of you not to allow them to influence your judgment one iota. There is not the shadow of a doubt that the syphilitic virus is capable of producing effects at extremely remote periods, and after long intervals of apparently good health. There is not the least doubt, further, that this virus is very widely diffused amongst all classes of the community. We must, therefore, expect to encounter its results very frequently, and under very varied circumstances. Our duty in this matter is to find out with accuracy, amongst the great variety of chronic maladies which come before us, which are syphilitic and which are not. Upon our success in diagnosis will depend our success in treatment. There is no room for joking skepticism. It is a simple question of fact. My patient presents a form of disease which we know must have had some cause. We know, further, that the syphilitic taint is a cause quite capable, in some instances, of producing a similar result; and we want to find out by collateral evidence whether that cause is in operation here. And, if it should so turn out that we are obliged, after pains-taking investigation, to believe in the presence and efficiency of that special cause in five out of every twenty patients, it cannot be helped. We want truth; and, if that is the truth, we must take it and act on it. A good means of checking our own conclusions is always at hand. I allude to the results of treatment. In most cases of tertiary syphilis, the consequences of acquired dis-

ease, the effects of specific treatment are most prompt and definite. Unfortunately, it is not so in a few, especially in those which concern the nervous system; and it is not so in many which are consequent on inherited taint. In these the efficacy of specific treatment is often but ill marked.

"Before proceeding to relate cases in detail, there are three or four doctrines regarding syphilis which have of late years fought their way to general belief, to which I must ask your special attention.

"The first of these is, that tertiary syphilis may, and often does, last through a person's life. By tertiary syphilis we mean all forms of specific disease occurring subsequently to the primary and exanthematic stages; practically, everything that comes later than two years after the infecting sore. The exanthematic stage usually occurs within two months of the original sore, and is rarely protracted beyond the year. We will, however, to give good margin, say two years. After this the disease appears to have no stages; periods of entire latency, of the most variable lengths, may occur. The symptoms which show themselves are irregular, and subject to repeated relapses after cure by treatment. Between the secondary and tertiary symptoms, an interval of health, often of several years, and it may be of many, supervenes.

"The second cardinal doctrine, as regards tertiary disease, is what I have just adverted to: that it may be *latent*. By latent, I mean that it may be entirely concealed. The patient may appear to be in robust health; may not show the slightest trace of a symptom; may even marry and beget healthy children; and yet the disease may reappear. In a recent lecture I brought forward a case in which the period of latency had been twenty years; and I shall have to mention several others in which it has been nearly as long. The phenomena of latency are even more wonderful in respect to inherited than they are in regard to acquired disease.

"Thirdly, I wish to insist that it is very common for married women to acquire a constitutional taint, without having ever had primary or secondary disease, and, therefore, without either themselves or their husbands having the slightest suspicion of what has happened.\* This occurs in women who have borne children to syphilitic husbands, and who have

\* According to my own observation, the reverse of this may also occur, and the husband be constitutionally infected without any local lesion or primary disorder.—Z.

imbibed from the fluids of the fœtus the poisonous material. We will call this 'Syphilis by conception.'

"Lastly, we must remark that it is very possible for a patient to have primary syphilis, and never be aware of it. In a woman this may easily be. A small indurated chancre causes very little irritation, and is perhaps never suspected to be of any consequence. It so happens, that the sore most likely to infect gives the least local annoyance; and many an inexperienced man will allow a sore of this kind to go on without treatment, and afterward, in good faith, assure his surgeon that he has 'never had a chancre.' But there are cases even yet more difficult to explain, in which even a practised eye never finds the infecting sore. I have more than once or twice known it to happen, that surgeons or medical students, who came under treatment for secondary forms of disease, and who made not the slightest attempt at secrecy, assured me that they had never been aware that they had primary sores.

"The chief lesson to be drawn from these various sources of fallacies in the histories we receive is, that the surgeon must learn, by widely-extended practice, to trust to his own eyes for a diagnosis. The importance of being independent of what our patients may tell us can scarcely be exaggerated in this matter. Not only will it save us from being misled by erroneous statements, but it will in some cases save the necessity for asking painful and annoying questions.

"We will now proceed with some clinical illustrations of our remarks.

*"Latent Syphilis; an Interval of Eight Years without Symptoms, the Patient enjoying Robust Health; Ulcerative Destruction of the Palate, with Psoriasis of the Backs of the Hands.*—Wendon Dawson, aged thirty, a dark-complexioned man, looking much older. Nine years ago he had a sore. He was then in the navy, went into Chatham Hospital; 'took mercury pills, and was salivated freely.' He had a bubo in one groin, which suppurated and remained open for two months. He left the hospital after six weeks, and took no more medicine. He recollects that he had a sore throat, but does not remember any rash.

"On leaving the hospital he went on board ship again; and had good health and remained quite well. Three years later he married. His wife has never conceived, and has remained in perfect health. Very soon after he married he had 'yellow jaundice,' and was very ill for a week or more; he was at

home a month. About a year ago his throat began to be sore, and six months after this sore, patches showed themselves on the backs of his hands. He has only been under treatment for these affections for about two months. During the interval since his discharge from the Chatham Hospital, with the exception of the attack of jaundice, he has enjoyed good health, and has been wholly free from symptoms; 'never lost a single day's work.' We questioned him most closely, and could not make out that he had had any suspicious symptoms whatever.

"January 13th, 1864. The subject of the above notes was sent to me by Mr. Swales, of Sheerness. He is now cachectic, and speaks in a hoarse whisper. His soft palate is extensively destroyed by ulceration, which is still spreading; his breath has the fœtor of diseased bone. The backs of his hands and wrists are covered by patches of psoriasis, with fissures and peeling of epidermis, just like the common psoriasis palmaris. There is not a single patch in either palm. There are two or three similar patches on each cheek. The man states that he has never had any venereal disease since the one described nine years ago, and there is not the least reason to doubt his statement. Let us note also that, although salivated in the first instance, he has never needed any medicine since, except during the last few months. Under about two months' treatment, this patient got quite well as regards his throat; and his psoriasis, although not cured, was much benefited.

"In the next case, we have again phagedæna of the throat, but its chief interest attaches to the fact that the man has entirely lost his hearing. With regard to the throat, I may, however, here ask your attention to the difference between the secondary and tertiary forms of disease as they occur in it. In the secondary stage, the inflammation is always superficial, and always ends in cicatrization, without noticeable loss. Indeed, excepting in the tonsil itself, there is rarely any ulceration. On the velum palati and pharynx it is rather inflammatory swelling than ulceration. All the deeply ulcerative or phagedænic affections of the throat occur years after the primary disease, and are tertiary. Of this, both the cases before us are examples."—(*British Med. Jour.* and *Dublin Med. Press.*)

## THE PHYSIOLOGICAL EFFECTS OF TOBACCO.

By W. B. RICHARDSON, M. A., M. D.

Dr. Richardson's views on the physiological effects of tobacco were given in the following summary: 1. The effects that result from smoking are due to different agents imbibed by the smoker, viz., carbonic acid, ammonia, nicotine, a volatile empyreumatic substance, and a bitter extract. The more common effects are traceable to the carbonic acid and ammonia; the rarer and more severe to the nicotine, the empyreumatic substance, and the extract. 2. The effects produced are very transitory, the poisons finding a ready exit from the body. 3. All the evils of smoking are functional in character, and no confirmed smoker can ever be said, so long as he indulges in the habit, to be well; it does not follow, however, that he is becoming the subject of organic and fatal disease because he smokes. 4. Smoking produces disturbances: (a) in the blood, causing undue fluidity and change in the red corpuscles; (b) on the stomach, giving rise to debility, nausea, and in extreme cases sickness; (c) on the heart, producing debility of that organ and irregular action; (d) on the organs of sense, causing in the extreme degree dilatation of the pupils of the eye, confusion of vision, bright lines, luminous or cobweb specks, and long retention of images on the retina, with other and analogous symptoms affecting the ear, viz., inability clearly to define sounds, and the annoyance of a sharp ringing sound like a whistle or bell; (e) on the brain, suspending the waste of that organ, and oppressing it if it be duly nourished, but soothing it if it be exhausted; (f) on the nervous filaments and sympathetic or organic nerves, leading to deficient power in them, and to over-secretion in those surfaces—glands—over which the nerves exert a controlling force; (g) on the mucous membrane of the mouth, causing enlargement and soreness of the tonsils—smoker's sore throat—redness, dryness, and occasional peeling off of the membrane, and either unnatural firmness or contraction and sponginess of the gums; (h) on the bronchial surface of the lungs when that is already irritable, sustaining the irritation, and increasing the cough. 5. The statements to the effect that tobacco smoke causes specific diseases, such as insanity, epilepsy, St. Vitus' dance, apoplexy, organic diseases of the heart, cancer and consumption, and chronic bronchitis, have been made without any sufficient evidence or reference



to facts; all such statements are devoid of truth, and can never accomplish the object which those who offer them have in view. 6. As the human body is maintained alive and in full vigor by its capacity, within certain well-defined limits, to absorb and apply oxygen; as the process of oxidation is most active and most required in those periods of life when the structures of the body are attaining their full development; and as tobacco smoke possesses the power of arresting such oxidation, the habit of smoking is most deleterious to the young, causing in them impairment of growth, premature manhood, and physical degradation.—*Medical Times and Gazette*.

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REPORT OF  
A CASE OF OPISTHOTONOS CURED BY ICE.

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By EDWARD HOWARD, M. R. C. P. L.

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This case seems worthy of record in a medico-legal point of view, as, under many circumstances, poisoning by strychnia would have been strongly suspected.

On the 13th of August, in the afternoon, I was summoned to attend Mr. C—, aged twenty-five, of bilious aspect and nervous temperament. He is a foreman in a draper's shop, but much out of doors as an agent collecting orders. About two years ago he was under my care with marked hysteria, which diagnosis was subsequently confirmed by other physicians who saw him. From that he recovered by a liberal diet and a general mineral-tonic treatment. He has enjoyed good health during the last eighteen months, although I do not doubt he has had much anxiety from failure in trade.

On arriving, I found my patient lying over the back of a chair, his shoulders and legs being supported by four attendants. His body was drawn backward and arched; attempts to put him straight caused a fearful increase of pain, which he described as like having a testicle pressed strongly. There was also a sense of suffocation from contraction of the abdominal and intercostal muscles; heart's sounds and action normal; pulse feeble and quick (72.) I had him placed on a couch, with a sofa pillow under his back as a support. He

was perfectly sensible, and had had no fit or loss of consciousness. A few hours before, he had a dull pain in the spine between the shoulders; this increased, and he found himself unable to speak to a customer he was serving. He went to the back of the house to get fresh air, and then was suddenly drawn back by the tonic spasm in which I found him. Tongue moist and clean, and the bowels regular. He had received no wound or injury of any kind, nor taken anything that could have disagreed with him. There was no sickness or nausea. Ordered a light nutritious diet, and five grains of sesquicarbonate of ammonia in infusion of gentian every fourth hour.

Aug. 14th.—Morning: Much the same; not worse, but no definite amelioration. Ordered ice to be constantly applied along the spine, and to continue medicine. Evening: Better; the spasm less violent, and the breathing unimpeded. To continue the ice, and take five grains of citrate of iron and quinine every sixth hour.

15th.—Still improving. The opisthotonos has vanished; only tenderness along the dorsal spine remains, and slight spasmodic pains on sudden movements of the body.

I need only add that the progress to entire recovery was rapid, and hitherto there has been no sign of a relapse.

Red Hill, Surrey, Sept. 10th, 1864.

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EFFECTS OF ERGOT OF WHEAT.—The following fact deserves to be noticed since it may become the starting point of researches and may be of useful therapeutical application. No one has, so far as I know, mentioned the fact observed by Dr. Poyet, suppression of milk under the influence of the habitual use of bread containing a notable proportion of ergot of wheat. This accident has taken place in six nurses who had eaten a considerable quantity of such bread. It should all the more fix the attention of practitioners that it has been also observed, at the same time, by Dr. Commarmond, and that it seemed destined, in consequence, to find its proper place in the symptomatology of ergotism. I may add that in the above circumstances the substitution of good wheat bread to the diseased one sufficient to avert this accident and restore the milk secretion.—*Med. and Surgical Reporter.*



RECOVERY IN  
TWO CASES OF ACUTE TRAUMATIC TETANUS.

By O. FOSTER, Esq., M.R.C.S.

In looking over my case-book I am reminded of the great interest I took in two severe cases of acute traumatic tetanus under my care within the last two or three years. I do not lay claim to any originality in the treatment of them, but as it was successful I forward them for insertion in the *Lancet*. If perchance by my remarks any one should be happier in the saving of life or mitigation of suffering in that formidable malady I shall be compensated fiftyfold.

It having fallen to my lot during a career of thirty years' country practice and surgery to a small provincial hospital to meet with several cases of acute traumatic tetanus which were unsuccessfully treated with morphine, belladonna, aconite, tobacco, warm baths, counter irritation, &c., singly and combined, and in some of which, I fear, the remedies increased the sufferings rather than relieved the sufferer, if they did not even hasten a fatal termination, I determined, if ever another case fell under my charge, I would act more upon the expectant principle than I had hitherto done, attending only to the usual routine of keeping the bowels well open, at the same time supporting the patient to the best of my power, and leaving the prominent features of the malady almost entirely uncared for. Singularly enough, it was not very long before the two following severe cases occurred in our little hospital of thirty beds. Both of them being my patients, I had the opportunity of carrying out my intention, and was rewarded by coaching them both through a severe and dangerous illness to a state of convalescence and health.

On the 9th of May, 1861, John S—, aged twelve years, a farm laborer, received a contusion of the shoulder in consequence of being jammed against a gate-post. On the 15th he was sent to the hospital in a tetanic condition; there was no external wound or evidence of injury to the bone. Trismus was severe, and the least effort to open his mouth was

accompanied by violent spasms in the neck, which soon extended to the back and legs; indeed the whole of his muscular system became so affected that it was at times difficult to keep him on the bed. Such were his sufferings that his near relatives only desired the one speedy termination to his misery. This state of things lasted for nearly three weeks, at the expiration of which time the severity of the symptoms began to subside, and he gradually advanced towards convalescence, which was slow. He left the hospital on July 3rd quite well. The treatment consisted of half a grain of acetate of morphia every night; castor oil and spirits of turpentine, half an ounce of each every morning, which acted freely, bringing away a quantity of vitiated offensive matter. The effort to swallow produced such violent spasms that we were often unable to get down the amount of nourishment required; but the directions were to give as much strong beef-tea, milk and port-wine as he could take, and we sometimes succeeded in getting down nearly half a pint of each in the twenty-four hours, of course taken in very small quantities.

Noah C ———, aged forty-five, in good health, and a prudently living man, was admitted on the 21st of March, 1862, having that day had his wrist and hand crushed when attending to some machinery. I removed the arm below the elbow, and the case progressed most favorably for ten days. On the 31st he had a rigor, which was followed by stiffness in the jaw and neck, and was attributed to cold. On April 1st, I strongly suspected what was impending, and on the 2nd we had well-marked evidence of tetanus. The case was a severe one, and for three weeks he suffered as much as I had ever witnessed on like occasions. The spasms were excessively severe. *Opiathotonos* existed to such an extent that he often only touched the bed with his head and heels. From the inordinate action of the masseter and temporal muscles, as well as those of deglutition, it was impossible to administer nourishment—which consisted of strong beef tea, milk and port wine—except in small quantities; of the latter he sometimes took a pint in the twenty-four hours. The general opinion was that he must die, though I was encouraged by the successful issue of the former case to hope otherwise; nor was I disappointed. On or about the 20th of April the case showed signs of amendment, which gradually though slowly progressed towards convalescence, and he left the hospital well on the 20th of May. The treatment carried out was the same as in the case of the boy S——, with the addition of the la-

halation of chloroform, which afforded relief only during the first two days; and that of a blister to the spine, which decidedly increased the severity of the spasms and his misery. The only medicine given was a grain of acetate of morphia every night, and half an ounce each of castor oil and spirit of turpentine every morning, which was steadily persevered with, and brought away, as in the former case, a quantity of vitiated secretions.

It will be evident to the reader that the tendency of the report of these cases, and my object in giving publicity to them, is to condemn the administration of powerful medicines, or resorting to active measures in the treatment of acute tetanus. We have here evidence in two instances of the subsidence of severe morbid irritation, the physical powers not having been crippled by depressing remedies.

Hitchin, Sept. 1864.

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—Earthquakes on the Pacific coast are likely to take a place in Etiology. We have known a number of instances, in the present year, in which the effect of the shock on the nervous system of sensitive females has been distressing, if not serious. In one case labor was prematurely induced, and in a second the same result was threatened. There is no such thing as getting injured to them. On the contrary, the dread of them rather increases. The Mexicans and South Americans, who have had sad experience of earthquakes in their native country, suffer the most from them here. There appears to be no serious ground for apprehension, however. In a few localities, especially in the southern counties of California, there have been undulations of the earth sufficient to endanger or destroy buildings of a certain class. But we have no authentic account of earthquakes capable of doing serious mischief having occurred in the locality of San Francisco, or anywhere to the northward.—*San Francisco Medical Press.*

## EDITORIAL AND MISCELLANEOUS,

LANCASTER, O., Nov. 20th, 1864.

*Messrs. Editors:*—Mrs. B., a healthy, laborious woman, mother of four children, menstruated the 4th of July the last time. On the 22d of Sept. following, called my attention to a tumor in the left groin, painless yet dragging. She had slight hemorrhage, and after an examination that diagnosed Ovarian tumor, (not entirely satisfactory,) was not seen until Oct. 3d; then slight hemorrhage and pain in uterus. This continued with variations until the 17th, when finding tampon, astringents and rest unavailing to prevent hemorrhage, I gave ergot, which induced strong uterine contractions and delivered a fœtus, together with four quarts of hydatids.

The child was well-formed, and from maceration appeared as if it had lost vitality two or three weeks. I have had cases of Hydatids, but never before with a fœtus. Is this unusual? I have no means of investigation, and write for information. At the period of the birth the uterus had the size and form of a seven months' conception, not the form exactly, as the weight and size was on the left, and there, no doubt, were the hydatids. Was their presence incompatible with full gestation? is the question of interest. Please answer in the *Journal*.

Yours,

TOM O. EDWARDS.

[Uterine hydatids are formed only in the impregnated uterus. They originate from the perverted growth of the villi of the chorion. These villi increase by a process of germination very similar to the roots of a tree. Under normal plastic influences a due proportion is preserved between the increase of the nutrient and depurative powers of the chorion and decidua, and the requirements of the enlarging embryo. But it sometimes happens that this growth of the villi is abnormal,

and the cells they contain, increase in size and become dropsical. These constitute uterine hydatids. When recent, these hydatids appear like vesicles filled with a transparent fluid, and are either round, oblong or pyriform in shape. Some are borne upon pedicles, others grow from the walls of larger hydatids. Mettenheimer asserts that on the walls of the primary vesicles, buds appear, and develop separate hydatids, just as the buds protrude from the healthy villi, to produce by normal growth new villousities.

The hydatigenus degeneration of the chorion usually occurs early in gestation. As a consequence nutrition is diverted from the embryo, and it dies. This may explain why a fœtus is not usually present when hydatids are expelled, or as Ramsbotham and Montgomery believe, a portion of the placenta may be left in the uterus after a natural delivery, and form the starting point of a hydatid growth.

In some instances of twin conception one fœtus has disappeared under the influence of hydatigenus degeneration, while the other has continued healthy up to the full term. It is related of the celebrated Beclard that he was born under these circumstances.

If the villi of a portion, only, of the chorion become dropsical, the embryo may still be developed into the fœtus, but a time arrives when the nourishment supplied is deficient, and the fœtus dies.

The hydatids are frequently cast off before the full term of gestation, not always, however, for in some instances they are retained in the uterus long after the term. Two reasons may be given for the early contractions of the uterus and the expulsion of its contents, under these circumstances, 1st. The dead fœtus and abnormal contents of the uterus act as a foreign substance, and provoke contractions. 2d. In normal pregnancy the uterus is not distended by its contents, but increases in capacity by a process of physiological growth. In the hydatigenus degeneration of the chorion, the mass increases in size so rapidly that the uterus becomes mechani-

cally distended, and it contracts and frees itself of its pathological contents.

The development of hydatids is often so rapid that, at the fifth month, the abdomen has attained the size it should present at term. The shape of the uterus is frequently altered from the usual pyriform outline, its growth extending laterally and it becomes irregular in form.

A case occurred in the practice of the writer, during the last summer, in which near twelve pints of hydatid formation with the degenerated placenta were discharged; no trace of a foetus could be found.—Eds.]

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*Editors Chicago Medical Journal:—*

In the August number of the *Journal* I notice an article, by Dr. Slayter, "On the Treatment of Healthy Ulcers of the Extremities by Sealing," or by the application of narrow strips of adhesive plaster around them, the whole covered with thin oiled silk. This mode of treatment, introduced, I believe, by Mr. Baynton, of Bristol, England, I have practiced for at least fifteen years, not only with healthy, but also with indolent ulcers, and can add my testimony to that of Dr. Slayter, in regard to its success.

Instead of oiled silk I use a dressing of simple ointment; but the silk would, no doubt, be equally efficacious, and much neater. The first severe case that I recollect treating in this way, was that of a laboring woman, about forty-five years of age, who had been afflicted for several years with an ulcer on the inner and posterior part of the leg, extending from near the knee to the ankle. It occurred after an attack of erysipelas. Various remedies had been resorted to previous to my attendance, with but partial and temporary relief. Under the adhesive strap mode of treatment, in about three months, she was cured and the ulcer healed. I have had a number of cases since, some equally, and one more severe, treated in a similar manner, and with like success. Dr. Slayter observes that this treatment is not generally resorted to in the West; and if

these few hastily written remarks will add to the influence of his article in inducing physicians here to try it, my aim will be accomplished.

D. B. TRIMBLE.

## BOOK NOTICES AND REVIEWS.

*Military Medical and Surgical Essays*: Prepared for the United States Sanitary Commission. Edited by Wm. A. Hammond, M. D., Surgeon-General U. S. Army, etc. Philadelphia: From the publishers, J. B. Lippincott & Co.—through S. C. Griggs & Co., 39 and 41 Lake Street, Chicago, Ills.

These papers were written by a number of the leading medical men of the present day, at the request of the U. S. Sanitary Commission, for the purpose of distributing them gratuitously among the medical army officers. Their merit was such as finally to make it advisable to bring them together in a permanent form and more easy of access. The result is this beautifully executed volume of above five hundred pages, divided into seventeen chapters, each treating of a different subject. Though especially designed for army surgeons, it is not the less useful or interesting to the physician in private practice. An enumeration of the authors and the subjects on which they write is a sufficient commendation of the work. These are as follows: *Military Hygiene and Therapeutics*, by Alfred Post, M. D., and Wm. H. VanBuren, M. D.; *Control and Prevention of Infectious Diseases*, by Elisha Harris, M. D.; *Quinine as a Prophylactic against Malarious Diseases*, by Wm. H. VanBuren, M. D.; *Vaccination in Armies*, by F. G. Smith, M. D., and Alfred Stille, M. D.; *Rules for Preserving the Health of the Soldiers*, by Wm. H. VanBuren, M. D.; *Scurvy*, by Wm. A. Hammond, M. D.; *Miasmatic Fever*, by John T. Metcalfe, M. D.; *Continued Fever*, by J. Baxter Upham, M. D.; *Yellow Fever*, by John T. Metcalfe, M. D.; *Pneumonia*, by Austin Flint, M. D.; *Dysentery*, by Alfred Stille, M. D.; *Pain and Anæsthetics*, by Valentine Mott, M. D.; *Hemorrhage from Wounds*, and *the Best Means of Arresting it*, by Valentine Mott, M. D.;



Treatment of Fractures in Military Surgery, by John H. Packard, M. D.; Amputations, by Stephen Smith, M. D.; The Excision of Joints for Traumatic Causes, by R. M. Hodges, M. D.; Venereal Diseases, by Freeman J. Bumstead, M. D.

*Outlines of Surgical Diagnosis:* By Geo. H. Macleod, M. D., F. R. C. S. E., EEL, Fac. Phys. and Surg. Glasgow; Lecturer on Surgery Anderson's University; Surgeon to the Glasgow Royal Infirmary, and the Lock Hospital; late Sen. Surg. on Civil Hospital, Smyrna, and General Hospital in Camp before Sebastopol. Memb. Cor. de la Soc. de Chir. de Paris; and author of "Notes on the Surgery of the War in the Crimea." First American Edition. Reprinted from Advanced Sheets. New York: Bailliere Brothers, 520 Broadway.

In reviewing medical works it has been our object and desire to peruse them carefully, and without prejudice, determined not to be influenced by any preconceived ideas of our own that would in any way tend to bias the reader, causing him to diverge from the path of generally accepted facts. We think we have studied this part of a reviewer's duty on all occasions.

The work before us is one of great value and cannot fail to be of infinite service; many of the articles, it is true, are brief, and more might have been written, but it is also true that what is written is lucid and comprehensive. The disease known as Anthrax or Carbuncle our author defines in a few words "as a circumscribed inflammation of the subcutaneous cellular tissue, leading to its death and expulsion." "It may arise as a simple affection or be an accompaniment of very serious constitutional ailments. It occurs in persons beyond middle life who are of a plethoric or feeble habit of body, or irritable constitutions, or who are intemperate in eating and drinking." It may occur in any part of the body, but is generally met with where there is cellular tissue rich in blood-vessels. It is especially on the posterior surface of the trunk that Anthrax occurs. It is rarely on the limbs."

We cannot resist quoting at length the author's language, as it illustrates the clearness of style and the easy manner he possesses of describing and contrasting diseases.



"Symptoms, a feeling of pricking, itching, or heat in the part is followed by redness, swelling, dark livid discoloration, and a throbbing, tense, burning pain. The parts get brawny and shining. The tumor does not "point," but remains flat, though it may be as a whole elevated above the surface. There is a large circumscribed, deep-set base, having some little boils, at other times small turbid vesicles around its circumference. In time the surface gets honey-combed by small ulcerous openings, which exude a dirty, scanty, irritating, thin, foetid pus, the amount of which may be increased by applying pressure to their neighborhood," etc., etc.

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"The local affection is preceded or accompanied by constitutional symptoms of considerable severity, which appear rarely," etc., etc.

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"The affections with which it is possible to confound Anthrax are, (a) Phlegmon; (b) Phlegmonous erysipelas (at its outset); (c) Malignant Pustule; (d) Boil; (e) Bedsore. The distinction is made by observing—

1. "The history of the rise and progress of the malady. In this way it is distinguished from b, c, and e."

2. "Large size from c and d."

3. "Age and disposition of person affected (a). Boils occur in the young and vigorous.

4. "Position. May occur on any part; but it is chiefly on the back that Anthrax is seen, and not especially on exposed parts, as (c); and is not especially on the parts most liable to pressure, as in (e).

5. "Not contagious," (b, c).

6. "Several small openings, (d, only one)."

"From common boil, its size, its not pointing, its occurring in old and feeble persons, its having many openings, being of a darker red, and having a deeper base, will distinguish it. Malignant pustule begins as a small pimple after inoculation. The local affection is the leading feature in the case, and the constitutional symptoms follow; while the reverse is the case in Anthrax.

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This style is observable throughout the work—no superfluity of words—making the volume more welcome to the

student. To Fractures and Dislocations the author has devoted many pages, elucidating the diagnostic characters of each form of injury, which are well worth special attention.

Gun-Shot Wounds; the entrance and exit of the ball; the size and shape of the wound, and the condition of the surrounding parts, are well described, notwithstanding but little is written on the subject.

The description of various tumors presenting themselves in different locations, especially those of the groin, cannot fail to impress the reader of the clear and succinct manner of the author's style.

In fact the entire work abounds in useful matter, and needs no further notice from us. It cannot fail to take a high rank among the standard works of our profession. We therefore recommend it to the student and practitioner.

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*A Comprehensive Medical Dictionary:* Containing the pronunciation, etymology, and signification of the terms made use of in Medicine and the Kindred Sciences. With an Appendix, comprising a complete list of all the more important Articles of the *Materia Medica*, arranged according to their Medicinal properties. Also an explanation of the Latin terms and phrases occurring in Anatomy, Pharmacy, etc., together with the necessary directions for writing Latin Prescriptions, etc., etc. By J. Thomas, M. D., Author of the system of pronunciation in Lippincott's Pronouncing Gazetteer of the World. Philadelphia: J. B. Lippincott & Co. 1864.

The want of a work like the present has long been felt by the profession. Desirable as it might be that every physician should possess such a thorough knowledge of the foreign languages, that no extra aid should be required either for definition or pronunciation of any term occurring in Medical Science, yet the contrary fact is the rule. To supply this deficiency the work before us is offered to the profession. An analysis of its contents is unnecessary, as its objects are indicated in the title page. That the author has succeeded in the undertaking, none will doubt who are familiar with his former labors, contained in Lippincott's Pronouncing Gazetteer.

We heartily welcome any means which shall produce greater uniformity in pronunciation by members of the medical profession in this country. This work should effect the object. We therefore recommend it to every medical man for frequent reference.

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*The Army Surgeon's Manual*: for the use of Medical Officers, Cadets, Chaplains, and Hospital Stewards, containing the Regulations of the Medical Department, all General Orders from the War Department, and Circulars from the Surgeon General's office, from January 1st, 1861, to July 1st, 1864. By William Grace, of Washington, D. C. Published by permission of the Surgeon General. New York: Bailliere Brothers, 520 Broadway. 1864.

This little volume of 200 pages, contains much information of interest to the *general* practitioner; and the rules, regulations and forms relating to the Medical Department of the Army, which renders it indispensable to the Army Surgeon.

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*Slade on Diphtheria*.—This is the second and thoroughly revised edition of the Fiske Prize Essay upon Diphtheria. It contains the sum of reliable information relating to this formidable malady—its history, nature and treatment. The latter is indicated in the following brief extract: ‘That it is now regarded as an asthenic disease, and consequently will bear no depletory measures, but on the contrary, requires tonics, stimulants and a nourishing diet, even in the early stages. Blisters, leeches and local bleeding of any sort should be prohibited.’ We do not hesitate to say that no physician should undertake the treatment of Diphtheria, who entertains opposite views. For sale by W. B. Kean & Co.

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